

## REMARKS

Claims 1-32 were pending in the application. Claims 1-32 stand rejected. Claim 1 is amended herein. Claims 33-45 are added herein. Claims 18-32 are canceled herein. Applicant requests reconsideration of the application in view of the following remarks.

### Claim Rejections - 35 U.S.C. §101

The Examiner has rejected Claims 1-32 as being directed to non-statutory subject matter. The Examiner states:

Based on Supreme Court precedent and recent Federal Circuit decisions, a §101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. See *In re Bilski*, 88 USPQ 2d 1385 (Fed. Cir. 2008) (*en banc*).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps.

To meet prong (1), the method step should positively recite the other statutory class (the thing or product) to which it is tied. This may be accomplished by having the claim positively recite the machine that accomplishes the method steps. Alternatively or to meet prong (2), the method step should positively recite identifying the material that is being changed to a different state or positively recite the subject matter that is being transformed.

In this particular case, the claims fail prong (1) because the method steps are not tied to a machine and can be performed without the use of a particular machine. Additionally, the claims fail prong (2) because the method steps do not transform the underlying subject matter to a different state or thing.

Independent claim 1 recites a method, consisting of collecting, transmitting, processing, and returning - none of these steps are tied to a statutory class of matter, nor do they involve a transformation of subject matter to a different state or thing.

Applicant respectfully traverses the rejection.

The Federal Circuit's recent *In re Bilski* decision has supposedly clarified the bounds of patent-eligible subject matter for process claims. See *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (*en banc*). The *Bilski* court held that "the machine-or-transformation test, properly applied, is the governing test for determining patent eligibility of a process under § 101." *Id.* at 956. The *Bilski* court further held that "the 'useful, concrete and tangible result' inquiry is inadequate [to determine whether a claim is patent-eligible under § 101.]" *Id.* at 959-60.

The *Bilski* court stated the machine-or-transformation test as follows: “A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *Id.* at 954; see also *In re Comiskey*, 499 F.3d 1365, 1377 (*Fed. Cir.* 2007) (discussing the same test from *Diehr*, 450 U.S. 175).

Process claims directed to fundamental principles – including laws of nature, natural phenomena, and abstract ideas – mental processes, or mathematical algorithms are unpatentable. *Bilski*, at 951-52. A process claim that is tied to a specific machine may be patentable under § 101. *Id.* at 961; *Comiskey*, 499 F.3d at 1377.

While the *Bilski* court did not elaborate on the “machine” branch of the test, it did provide some guidance on the issue. The court explained that “the use of a specific machine or transformation of an article must impose meaningful limits on the claim’s scope to impart patent-eligibility” and “the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity.” *Bilski*, at 961-62 (internal citations omitted).

Turning to the “transformation” branch of the “machine-or transformation” test, claims reciting incidental transformations or extrasolution activity also do not convert an otherwise ineligible claim into an eligible one. However in *Benson*, the Supreme Court concluded that “[t]ransformation and reduction of an article ‘to a different state or thing’ is the clue to the patentability of a process claim that does not include particular machines.” *Benson*, 409 U.S. at 70. The Court explained that several cases – *Corning v. Burden*, 15 How. (56 U.S.) 252 (1854) (tanning and dyeing), *Cochrane*, 94 U.S. 780 (manufacturing flour), *Tilghman v. Proctor*, 102 U.S. 707 (1880) (manufacturing fat acids), and *Expanded Metal Co. v. Bradford*, 214 U.S. 366 (1909) (expanding metal) – could all fairly be read to involve physical transformation of some article or material to a different state or thing. *Benson*, 409 U.S. at 69-70. See also *Bilski*, at 962-63 (discussing physical transformation and reviewing Supreme Court precedents including *Diehr* (process of curing rubber)).

Where the claims do not involve a physical transformation, the *Bilski* court explained, that the central question is “whether Applicants’ claim recites a fundamental principle and, if so, whether it would pre-empt substantially all uses of that fundamental principle if allowed.” *Bilski* at 954. In other words, the court distinguished between “claims that ‘seek to pre-empt the use of’ a fundamental principle, on the one hand, and claims that seek only to foreclose

others from using a particular ‘application’ of that fundamental principle, on the other. *Id.* at 953 (quoting *Diehr*, 450 U.S. at 187).

In an effort to advance prosecution, claim 1 is hereby amended to remedy the Examiner's §101 rejections. In addition, claims 32-45 are presented to remedy the Examiner's §101 rejections. The amendments are supported at least on page 6, lines 13-16, which states, “The fraud-detection system 100 utilizes a computer 101 to process the data ... to determine whether the transaction is fraudulent or potentially fraudulent.”

Thus, the claims, as presently amended, satisfy the second prong of the *Bilski* test since they transform a tangible article into a different state. Moreover, the claims do not recite a fundamental principle that would pre-empt substantially all uses of that fundamental principle if allowed. In addition, the claims are not directed to fundamental principles – including laws of nature, natural phenomena, and abstract ideas – mental processes, or mathematical algorithms.

Specifically the claims are directed to a system and method for detecting fraud in a non-personal environment involving a shipment of merchandise from a merchant to a potential purchaser and effecting the shipment of that merchandise if the method indicates that the likelihood that the transaction is fraudulent is below the merchant's threshold. The purchase transaction and the shipment of merchandise are tangible things whose stated have been changed from a potentiality to being effected and the actual physical movement or shipment of physical merchandise depending upon the results of the fraud-detection steps.

Because the claims achieve the tangible result of effecting a purchase transaction and the shipment of merchandise from a merchant to a purchaser, Applicants believe that the claims are patentable according to the *Bilski* decision, specifically the claims now satisfy the second prong of the *Bilski* test, and Applicants respectfully request withdrawal of the Section 101 rejection. Moreover, newly presented claims 32 and 45 also satisfy the first prong of the *Bilski* test since the claims recited a system that is tied to a particular machine or apparatus, *i.e.*, a specifically programmed computer processor.

#### **Claim Rejections - 35 U.S.C. §102**

Claims 1-32 stand rejected as being anticipated in view of Walker *et al.* (U.S. Patent No. 6,163,771). Applicant respectfully traverses the rejection.

The Examiner states that:

Walker discloses a mail-order based credit card fraud, both Visa and MasterCard have deployed databases that allow a merchant to verify that a given credit card account number is connected to a specific billing address. Visa calls this service the Address verification service. The theory behind the service is that a thief (for example, a dishonest restaurant waiter) might be able to use a credit card receipt slip to steal an active account number, but if he tries to use that number for a mail order purchase he would not know the correct address associated with that number. Even if a thief were to obtain the cardholder's address, this service can allow a merchant to compare the shipping address of the catalog order to the current billing address for that account number and thus possibly identify any suspicious activity (which is readable as Applicant's claimed invention wherein said a method for detecting fraud non-personal transactions), comprising the steps of:

Collecting purchaser data for the transaction, said purchaser data comprising a billing address and a ship-to-address; transmitting said ship-to-address to a fraud-detection system, processing said ship-to-address to determine whether the transaction is potentially fraudulent by checking the purchaser's ship-to-address against non-billing address criteria, and returning the relative risk of fraudulent activity associated with the transaction (see, col 2, lines 7-20).

The Examiner asserts that *col. 2, lines 7-20* of the cited reference teach a "non-billing address". However, Walker does not teach, disclose or fairly suggest "checking the purchaser's ship-to-address against non-billing address" as the Examiner alleges. In fact Walker specifically teaches **only** to check against billing address to determine relative risk. In contrast, claim 1 specifically recites "checking the purchaser's ship-to address against non-billing address criteria."

The teaching of Walker, *col. 2, lines 7 – 20*, relied upon by the Examiner is as follows:

To further help combat mail-order based credit card fraud, both Visa and MasterCard have deployed databases that allow a merchant to verify that a given credit card account number is connected to a specific billing address. Visa calls this service the Address Verification Service. The theory behind the service is that a thief (for example, a dishonest restaurant waiter) might be able to use a credit card receipt slip to steal an active account number, but if he tries to use that number for a mail order purchase he would not know the correct address associated with that number. Even if a thief were to obtain the cardholder's address, this service can allow a merchant to compare the shipping address of the catalog order **to the current billing**

**address** for that account number and thus possibly identify any suspicious activity.  
(emphasis added.)

It should be understood that Walker's disclosed Visa/MC AVS system is an address verification system. Since the AVS system reflects only the address most recently provided by either the cardholder or the thief that has recently changed the billing address on a credit card, with the bank, AVS is actually an address comparison system that takes no account of recent changes and uses none of the Methods employed by the Applicant's invention to validate the reliability of the transaction based on historical, current and projected real world information.

While the AVS simply repeats the billing address in its database, to the merchant for comparison to the ship to address, the Applicants' invention tests every element of each transaction for both its real world viability and the probability that though the elements individually have been carefully crafted by the thief they fit a projected pattern of fraud. In no way does Walker, by mentioning that the merchant can employ the AVS system, teach the applicants invention. The AVS system has a number of inherent problems making it unreliable. For example, it creates suspicion when a grandmother wants to send a present to her grandchildren, while permitting a merchant to ship with confidence to a thief. All the thief had to know was to change the billing address with the bank, prior to making his purchases.

Moreover, a large percentage of transactions in today's e-commerce market are billed to one address and shipped to another and rejecting them would be more expensive to the merchant than allowing the fraud to exist. The billing address is currently a valid "label" for the card owner and its use means the transaction is safe. The Walker Patent assumes that any AVS address provided by Visa/Mastercard will be an appropriate address for the card owner. Such an assumption is typically not valid and often results in fraud being perpetuated.

One of the common approaches to fraud in non-personal transactions is to obtain the credit card information, change the billing address, purchase and ship to the changed address, apply for new credit cards, and return the card to the original address before the card owner is alerted. The invention of the present application identifies these types of fraud as the purchases were occurring. (See page 9, lines 25-35). No other known prior art system is capable of performing this functionality.

Nor does Walker in any way reflect or teach use of any approach or need to verify the validity of the AVS address. The Examiners has stated that an address is just an address --a label. However, the present invention reflects the belief that no label can be considered valid until it has been thoroughly tested and found to be valid. In the case of the grandmother example referenced above, the labels of 'bill to' address and 'ship to' address will prove to be valid- unless of course the address for the grandchildren proves to be a warehouse on the docks for easy reshipping used many times in the past by the fraudsters. The AVS would not identify this fraud before shipment, the Applicant's invention will.

Another primary difference between the AVS approach to fraud prevention and the approach of the Applicants' invention is that the banks underlying the AVS system obtain all of their stored address information from the purported person responsible for payment of the credit card. This stored data reflects only information on the card owner and is subject to tampering. In contrast, the Applicants' invention gets all of its information on all aspects of the transaction, from multiple sources including internal proprietary databases, public databases and government databases making it virtually impossible for the potential thief to alter all relevant data. As a result, the fraudster will, even with the attempt to alter the histories wind up with inconsistencies that will

indicate the fraudulent nature of the transaction to the Applicant's invention, preventing loss to the merchant.

In addition, the examiner and Walker also imply that every transaction in which an item is to be shipped to an address other than the billing address is going to be fraudulent or at very least highly suspect. However in today's e-commerce marketplace, as many items are shipped to addresses other than billing address as are shipped to the billing address itself making such a test overly cumbersome and providing a high probability of false positives and negatives, greatly diminishing the usefulness of the system to detect and prevent fraud.

As such, Walker teaches the exact opposite of the invention defined by claims 1 and 32. Applicants' claims 1 and 32 require, "processing the ship-to address to determine whether the transaction is potentially fraudulent by checking the purchaser's ship-to address against *non-billing address criteria*." Walker, however, explicitly teaches that, "this service can allow a merchant to compare the shipping address of the catalog order to the *current billing address* for that account number and thus possibly identify any suspicious activity."

New independent claims 34 and 45 recite, among other things, "comparing the 'ship to' address against a Coding Accuracy Support System (CASS) to determine whether the 'ship to' address is a structurally viable and a deliverable address." For at least this reason, claims 34 and 45 are not anticipated by Walker. In addition, claims 34 and 45 recites other features not taught or fairly suggested by Walker.

Because claims 2-17 and 35-44 depend from claims 1 and 34 respectively, and are allowable based at least upon their dependency upon an allowable independent claim. Applicant respectfully requests that the rejection of claims 2-17 and 35-44 be withdrawn, and that claims 2-17 and 35-44 be allowed. In addition, the dependent claims recite various features not found in

Walker including: “checking the potential purchaser’s ‘ship-to’ address further comprises checking to determine whether the potential purchaser’s ‘ship-to’ address exists in the real world,” “checking the potential purchaser’s ‘ship-to’ address further comprises comparing a zip code of the ‘ship-to address’ against a post office database and comparing the city and state of the ‘ship-to’ address against a city and state represented by a ZIP + 4 code,” “checking the area code to determine whether the areas code fits the geographic area of the purchaser’s ship-to address,” “comparing the ‘ship-to’ address against a change of address service database,” “checking the potential purchaser’s ‘ship-to’ address comprises rating a building site associated with the ‘ship-to’ address to determine whether the building or lot type is consistent with the transaction data,” “checking the ‘ship-to’ address against an historical database to determine whether a prior history of fraud exists at the ‘ship-to’ address,” “checking the ‘ship-to’ address against an historical database to determine whether a pattern of fraudulent activity exists for the ‘ship-to’ address,” “determining whether an overlapping use of ship-to addresses and payment means is present by consulting a database of recent prior transactions creating interlocking concurrent shipments to two or more addresses with three or more payment means, within a short period of time,” “retroactively notifying merchants of previous transactions associated with the ‘ship-to’ address once a pattern of potential fraudulent activity has been detected,” and “checking the ‘ship-to’ address against a modeling engine to determine whether elements exist in the demographic data which correlate with recent fraud trends.” None of these feature are disclosed or fairly suggested by Walker.

The remaining references cited (but not applied) have been reviewed. These references are not deemed to be material to the patentability of the claimed invention. For the foregoing



reasons, the claims as they now stand are patentable over the art of record, and withdrawal of the rejections and allowance of all pending claims is earnestly solicited.

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It is respectfully submitted that the claims in the application are allowable.

Reconsideration and withdrawal of all rejections are respectfully requested. Favorable notice to this effect and early Notice of Allowance are earnestly solicited.

Should the examiner have any questions and in order to expedite prosecution of this Application, the Examiner is encouraged to contact the undersigned directly.

Respectfully submitted,



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